

**WHAT IS CLAIMED IS:**

1. An image processing apparatus, comprising:

a land object rendering means for rendering a land object in a 3-dimension virtual space; and

5 a grid rendering means for rendering a grid on a surface of said land object,  
said grid rendering means displaying said grid by combining a plurality of grid lines with each other in vertical and horizontal directions,

said grid including a plurality of sections sectioned by intersecting points of said grid lines in the vertical direction and in the horizontal direction, and

10 each of said plurality of grid lines being constructed by a series of grid line elements which are elements for forming said grid line in a plural number, wherein

said grid rendering means includes the number of elements determining means for making the number of the grid line elements included in each of said sections different depending upon a gradient of the surface of said land object at a position corresponding to  
15 each of said sections so that the grid lines of the vertical direction and the grid lines of the horizontal direction can be displayed, and a flow rendering means for performing rendering as if said grid lines each formed by said grid line elements having the number determined by said number of elements determining means flow toward an inclined direction at a constant speed on the surface of said land object.

20 2. An image processing apparatus according to claim 1, further comprising:

a grid line element changing means for changing a length of said grid line element depending upon the number determined by said number of elements determining means, wherein

said flow rendering means performs rendering as if the grid lines each having the  
25 series of grid line elements changed in length by said grid line element changing means

flow toward the inclined direction of the surface of said land object at a constant speed.

3. An image processing apparatus according to claim 1, wherein said grid line elements have visual directivity,

5 said flow rendering means performs rendering such that a front direction of said grid line elements becomes coincident with the inclined direction of the surface of said land object.

4. An image processing apparatus according to any one of claims 1 to 3, wherein said land object is a land object of a virtual golf course, and the invention further comprising an operating means for inputting operating information by a player, wherein

10 a virtual golf game is performed in said golf course in response to an operation of said operating means.

5. An image processing program executed by an image processing apparatus having a land object rendering means for rendering a land object in a 3-dimension virtual space and a grid rendering means for rendering a grid on a surface of said land object, said  
15 program making said grid rendering means execute

a displaying step for displaying said grid by combining a plurality of grid lines with each other in vertical and horizontal directions,

said grid including a plurality of sections sectioned by intersecting points of said grid lines of the vertical direction and said grid lines of the horizontal direction,

20 each of said plurality of grid lines being constructed by a series of grid line elements being elements for forming said grid line in a plural number,

the number of elements determining step for making the number of the grid line elements included in each of said sections different depending upon a gradient of the surface of said land object at a position corresponding to each of said sections so that said  
25 grid lines of the vertical direction and said grid lines of the horizontal direction can be

displayed, and

a flow rendering step for performing rendering as if said grid lines each formed by said grid line elements having the number determined by said number of elements determining step flow toward an inclined direction at a constant speed on the surface of said land object.

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